# REGULATION 1.21 Enhanced Leak Detection and Repair (LDAR) Program

**Air Pollution Control District of Jefferson County**
**Jefferson County, Kentucky**

**Relates To:** KRS Chapter 77 Air Pollution Control
**Pursuant To:** KRS Chapter 77 Air Pollution Control
**Necessity and Function:** KRS 77.180 authorizes the Air Pollution Control Board to adopt and enforce all orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation establishes the requirement for the owner or operator of certain process units to develop and implement an enhanced leak detection and repair program.

## SECTION 1 Definitions

Terms used in this regulation that are not defined in this regulation shall have the meaning given to them in Regulation 1.02 *Definitions*.

1.1 "Affected facility" means either of the following:

1.1.1 A process unit that is subject to requirements of a program for the detection and repair of equipment leaks in 40 CFR Part 60, 61, or 63 except for 40 CFR Part 63 Subpart M *National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities*, or

1.1.2 A process unit for which the District determines the implementation of a leak detection and repair (LDAR) program is appropriate to minimize the likelihood of the occurrence of increased emissions that may become harmful to public health or welfare.

1.2 "Connector" means a flanged, screwed, or other joined fitting used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. A joined fitting welded completely around the circumference of the interface is not considered a connector for the purpose of this regulation.

1.3 "Independent third party" means an entity in which the owner or operator (including any subsidiary, parent company, sister company, or joint venture) of the affected facility has no ownership or other financial interest. If the routine monitoring at an affected facility is done by a contractor rather than by in-house personnel, then the independent third party shall not be the contractor that did the routine monitoring nor have ownership or other financial interest in that contractor.

1.4 "Leak" means:

1.4.1 For a valve or flange, a screening concentration greater than 100 parts per million by volume,

1.4.2 For a pump, a screening concentration greater than 250 parts per million by volume,

1.4.3 For an agitator or compressor, a screening concentration greater than 2,500 parts per million by volume, and

1.4.4 For any other component, a screening concentration greater than 500 parts per million by volume.

1.4.5 All concentrations specified in this definition are as methane, above background.

1.5 "Process unit" means the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product, including ancillary equipment such as, but not limited to, pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and control

devices or systems. A process unit may consist of more than 1 unit operation. A process unit does not include utilities, such as steam, uncontaminated water, or compressed air.

1.6 "Water seal control" means a seal pot, p-leg trap, or other type of trap filled with water (e.g., flooded sewers that maintain water levels adequate to prevent air flow through the system) that creates a water barrier between the water level of the seal and the atmosphere. The water level of the seal shall be maintained in the vertical leg of a drain in order to be considered a water seal.

## SECTION 2 Applicability

This regulation applies to any affected facility except that an affected facility that is subject to Section 14 shall comply with the provisions of Section 14.

## SECTION 3 General Monitoring and Inspection Requirements

The owner or operator of an affected facility shall monitor the process unit equipment for organic compound leaks according to the requirements of 40 CFR 63 Subpart H *National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks*, except that the following additional requirements shall apply:

3.1 The organic compound emissions from the following components shall be monitored with a hydrocarbon gas analyzer each calendar quarter: blind flange, cap, or plug at the end of a pipe or line containing an organic compound; heat exchanger head; sight glass; meter; gauge; sampling connection; bolted manway; hatch; connector; agitator; sump cover; junction box vent; cover and seal on an ~~volatile~~ organic compound ~~(VOC)~~ water separator; and process drain.

3.2 As an alternative to the requirements of section 3.1 for blind flanges, caps, or plugs at the end of pipes or lines containing an organic compound; sight glasses; meters; gauges; sampling connections; bolted manways; connectors; heat exchanger heads; hatches; and sump covers (the section 3.2 components), the owner or operator may elect to monitor all of these components of a process unit and then conduct subsequent monitoring at the following frequencies:

3.2.1 Once per year (i.e., 12-month period), if the percent of leaking section 3.2 components of the process unit was 0.5% or greater, but less than 2.0%, during the last required annual or biennial monitoring period,

3.2.2 Once every 2 years, if the percent of leaking section 3.2 components of the process unit was less than 0.5% during the last required monitoring period. An owner or operator may comply with section 3.2.2 by monitoring at least 40% of these components in the first year and the remainder of the components in the second year. The percent of leaking section 3.2 components shall be calculated for the total of all monitoring performed during the 2-year period,

3.2.3 If the owner or operator of the process unit in a biennial leak detection and repair program calculates less than 0.5% of leaking section 3.2 components from the 2-year monitoring period, the owner or operator may monitor the components one time every 4 years. An owner or operator may comply with the requirements of section 3.2.3 by monitoring at least 20% of the components each year until all section 3.2 components have been monitored within 4 years,

3.2.4 If the process unit complying with the requirements of section 3.2.3 using a 4-year

monitoring interval program has greater than or equal to 0.5% but less than 1.0% leaking section 3.2 components, the owner or operator shall increase the monitoring frequency to one time every 2 years. An owner or operator may comply with the requirements of section 3.2.4 by monitoring at least 40% of the components in the first year and the remainder of the components in the second year. The owner or operator may again elect to use the provisions of section 3.2.3 when the percent leaking components decreases to less than 0.5%,

3.2.5 If the process unit complying with requirements of section 3.2.3 using a 4-year monitoring interval program has greater than or equal to 1.0% but less than 2.0% leaking section 3.2 components, the owner or operator shall increase the monitoring frequency to one time per year. The owner or operator may again elect to use the provisions of section 3.2.3 when the percent leaking components decreases to less than 0.5%, and

3.2.6 If a process unit complying with requirements of section 3.2.3 using a 4-year monitoring interval program has 2.0% or greater leaking section 3.2 components, the owner or operator shall increase the monitoring frequency to quarterly. The owner or operator may again elect to use the provisions of section 3.2.3 when the percent leaking components decreases to less than 0.5%.

3.3 A process drain equipped with a water seal control shall be inspected weekly to ensure that the water seal control is effective in preventing ventilation, except that daily inspections are required for a seal that has failed 3 or more inspections in any 12-month period. Upon request by the District, the owner or operator shall demonstrate (e.g., by visual inspection or smoke test) that the water seal control is properly designed and restricts ventilation.

3.4 A process drain not equipped with a water seal control shall be inspected monthly to ensure that each gasket, cap, and plug is in place and that there is no gap, crack, or other hole in the gasket, cap, or plug. In addition, each cap and plug shall be inspected monthly to ensure that it is tightly-fitting.

3.5 A pressure relief valve in gaseous service that is not vented to a closed-vent system shall be monitored with a hydrocarbon gas analyzer each calendar quarter.

3.6 Monitored screening concentrations shall be recorded for each component in gaseous or light liquid service. Notations such as “pegged,” “off scale,” “leaking,” “not leaking,” or “below leak definition” shall not be substituted for numerical hydrocarbon gas analyzer results. For readings that are higher than the upper end of the scale (i.e., pegged) even when using the highest scale setting or a dilution probe, a default pegged value of 100,000 parts per million by volume shall be recorded.

3.7 If there are 25,000 or more components at an affected facility required to be monitored by this regulation, then the monitoring data shall be recorded simultaneously when the component is monitored in an electronic format using a datalogger or other similar device and the information shall be kept electronically in a ~~using computer hardware and software as a~~ computer database. However, if the electronic recording device fails, then the monitoring data may temporarily be recorded in a non-electronic format and later entered into the electronic database.

3.8 Notwithstanding the monitoring frequency provisions of sections 3.1 to 3.5, the District may, for cause, require monitoring to be done on a more frequent schedule. If the District determines that more frequent monitoring is appropriate, the District shall notify the owner or operator of the affected facility in writing of the required revised monitoring schedule and

the reason for requiring more frequent monitoring.

3.~~9~~8 The owner or operator may propose to the District for approval a leak monitoring program that uses continuous monitoring of leaks with an alarm system that may be used to replace the monitoring requirement of sections 3.1 to 3.7. This program shall include a record keeping plan~~equivalent to the record keeping required in Section 7~~.

## SECTION 4 Leak Repair

4.1 For leaks detected over 10,000 parts per million by volume (ppmv), a first attempt at repairing the leaking component shall be made no later than 1 process unit operating ~~business~~ day after the leak is detected, and the component shall be repaired no later than 7 calendar days after the leak is detected.

4.2 For all other components subject to this regulation found to have leaks as defined in section 1.4, the components shall be repaired as specified in 40 CFR 63 Subpart H.

4.3 For a valve that is not a pressure relief valve or automatic control valve, repair may be delayed beyond the period designated in section 4.1 only under one of the following conditions:

4.3.1 Repair or replacement of the valve will occur at the next scheduled process unit shutdown and the owner or operator has undertaken "extraordinary efforts" to repair the leaking valve. For purposes of section 4.3, "extraordinary efforts" is defined as nonroutine repair methods (e.g., sealant injection) or use of a closed-vent system to capture and control the leak by at least 90%. For a leak detected at a level greater than 10,000 ppmv, extraordinary efforts shall be undertaken within 7 days of the valve being placed on the shutdown list; however, the owner or operator may keep the leaking valve on the shutdown list only after 2 unsuccessful attempts to repair a leaking valve through extraordinary efforts, provided that the second extraordinary effort attempt is made within 15 days of the first extraordinary effort attempt. For any other leak, extraordinary efforts shall be undertaken within 15 days of the valve being placed on the shutdown list, and a second extraordinary effort attempt is not required,

4.3.2 The owner or operator maintains, and makes available to the District upon request, documentation that demonstrates that there is a safety, mechanical, or major environmental concern posed by repairing the leak by using "extraordinary efforts", or

4.3.3 The valve is isolated from the process unit and does not remain in organic compound service.

4.4 A supervisory level person shall sign-off prior to putting a component on a "delay of repair" list.

## SECTION 5 Equipment Requirements

The following equipment standards shall apply in addition to any equipment standards in 40 CFR 63 Subpart H.

5.1 A pressure relief valve in organic compound service that vents to atmosphere and that is installed in series with a rupture disk, pin, second relief valve, or other similar leak-tight pressure relief component shall be equipped with a pressure-sensing device or an equivalent device or system between the pressure relief valve and the other pressure relief component to monitor for leakage past the first pressure relief component~~valve~~. When leakage is detected past the first pressure relief component~~valve~~, the pressure relief component ~~valve~~ shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after the failure

is detected.

5.2 A pump, compressor, or agitator installed on or after July 1, 2006, shall be equipped with a shaft sealing system that prevents or detects the emission of organic compounds ~~VOCs~~ from the seal.

5.2.1 An acceptable shaft sealing system includes:

5.2.1.1 A seal equipped with piping capable of transporting any leakage from the seal back to the process unit,

5.2.1.2 A seal with a closed-vent system capable of transporting to a control device any leakage from the seal,

5.2.1.3 A dual seal system with a heavy liquid or non-organic compound ~~VOC~~ barrier fluid or gas at a higher pressure than the process pressure, and

5.2.1.4 A seal with an automatic seal failure detection and alarm system.

5.2.2 The District may approve a shaft sealing system different from those specified in section 5.2.1, provided that the District considers, on a case-by-case basis, the technological circumstances of the individual pump, compressor, or agitator, and determines that the alternative shaft sealing system will result in the lowest emissions level that the pump, compressor, or agitator is capable of meeting.

5.3 The following equipment standards shall apply to a process drain:

5.3.1 If a water seal control is used the only acceptable alternative to water as the sealing liquid is ethylene glycol, propylene glycol, or a similar low vapor pressure antifreeze, which may be used only during the period of November through February,

5.3.2 As an alternative to the weekly water seal inspections of section 3.3, the owner or operator may choose to equip the process drain with one of the following:

5.3.2.1 An alarm that alerts the operator if the water level in the vertical leg of the drain falls below 50% of the maximum level and a device that continuously records the status of the water level alarm, including the time period for which the alarm is activated, or

5.3.2.2 A flow-monitoring device indicating either positive flow from a main to a branch water line supplying a trap or water being continuously dripped into the trap, and a device that continuously records the status of water flow into the trap, and

5.3.3 For a process drain not equipped with a water seal control, the process drain shall be equipped with one of the following:

5.3.3.1 A gasketed seal, or

5.3.3.2 A tightly-fitting cap or plug.

5.4 Construction of a new or reworked piping, valve, pump, or compressor system shall conform to the applicable American National Standards Institute, American Petroleum Institute, American Society of Mechanical Engineers, or equivalent codes.

5.5 A new or reworked underground process unit pipeline shall not contain a buried valve that would render monitoring for fugitive emissions impractical.

5.6 To the extent that good engineering practice will permit, a new or reworked component shall be located so as to be reasonably accessible for leak checking during the operation of the process unit. A component elevated more than 2 meters above a support surface may ~~shall~~ be considered nonaccessible and may ~~shall~~ be included on a list of nonaccessible components and made available to the District upon request.

5.7 A new or reworked piping connection shall be either welded or flanged or consist of pressed

and permanently formed metal-to-metal seals. A screwed connection is permissible only on new piping smaller than 2 inches in diameter. A new connection shall be checked for leaks using one of the following methods:

5.7.1 Within 10 days of being placed in organic compound service, by monitoring with a hydrocarbon gas analyzer for a component in light liquid and gas service and by using visual, audio, or olfactory means for a component in heavy liquid service, or.

5.7.2 Before placing the system in organic compound service, by pressure testing at a pressure that is equal to or greater than the maximum operating pressure for that component.

5.8 For a pressure relief valve installed in series with a rupture disk, pin, second relief valve, or other similar leak-tight pressure relief component, a pressure gauge or an equivalent device or system shall be installed between the first pressure relief component ~~valve~~ and the second ~~other~~ pressure relief component to monitor for leakage past the first pressure relief component~~valve~~. When leakage is detected past the first pressure relief component~~valve~~, that component shall be repaired or replaced at the earliest opportunity, but no later than the next process unit shutdown. ~~An equivalent device or system may be proposed for approval to the District.~~

## SECTION 6 Personnel Requirements

6.1 The owner or operator of an affected facility shall act as, or assign a person to be, the leak detection and repair (LDAR) coordinator. The position of LDAR coordinator shall be authorized to implement appropriate changes regarding LDAR activities.

6.2 The owner or operator of an affected facility shall provide LDAR program training for:

6.2.1 Each new LDAR technician employee prior to performing LDAR program duties without supervision,

6.2.2 Each existing LDAR technician employee, at least once every 2 ~~per~~ years, and

6.2.3 Each operations and maintenance employee who deals with the affected facility's potentially leaking components, at least once every 2 ~~per~~ years.

6.3 If the owner or operator of an affected facility uses the services of contractors to do LDAR-related work, then the owner or operator shall determine and assure that the contracted employees have sufficient training to meet the requirements of this section.

## SECTION 7 Recordkeeping Requirements

7.1 If the owner or operator of an affected facility is securing a bypass line valve in the closed position to comply with 40 CFR 63.172(j)(2), the owner or operator shall:

7.1.1 Maintain a record of the dates that the monthly visual inspection of the seal or closure mechanism has been performed,

7.1.2 Record the date and time of all periods when:

7.1.2.1 The seal mechanism is broken,

7.1.2.2 The bypass line valve position has changed, or

7.1.2.3 The key for a lock-and-key type lock has been checked out, and

7.1.3 Maintain a record of each time the bypass line valve was opened, including:

7.1.3.1 The date and time the valve was opened,

7.1.3.2 The date and time the valve was closed,

7.1.3.3 The reason the valve was opened,

7.1.3.4 The flow through the valve, and

7.1.3.5 The resulting speciated emissions, including the basis for the emissions estimate.

7.2 Records of all components subject to Section 4 for which repair was delayed shall be prepared and maintained as specified in 40 CFR 63 Subpart H.

7.3 The owner or operator shall maintain all records required by this regulation for at least 5 years and make them available to the District for review upon request, including records identifying and justifying each exemption claimed under Section 8.

## SECTION 8 Exemptions

8.1 The following are exempt from the shaft sealing system requirements of section 5.2 of this regulation:

8.1.1 Submerged pumps or sealless pumps (e.g., diaphragm, canned, or magnetic-driven pumps), and

8.1.2 Pumps, compressors, and agitators installed before July 1, 2006.

8.2 The following components are exempt from the requirements of this regulation:

8.2.1 Components in continuous vacuum service,

8.2.2 Valves that are not externally regulated (such as in-line check valves),

8.2.3 Components that are insulated or buried underground, making them inaccessible to monitoring with an hydrocarbon gas analyzer,

8.2.4 Sampling connection systems, as defined in 40 CFR §63.161 ~~(January 17, 1997)~~, that are in compliance with 40 CFR §63.166(a) and (b) ~~(June 20, 1996)~~, and

8.2.5 Instrumentation systems, as defined in 40 CFR §63.161 ~~(January 17, 1997)~~, that are in compliance with 40 CFR §63.169 ~~(June 20, 1996)~~.

## SECTION 9 Test Methods

9.1 The monitoring and testing requirements of this regulation shall be satisfied by using the methods ~~as~~ specified in 40 CFR 63 Subpart H.

9.2 ~~Minor modifications to these test methods may be submitted to the District for approval.~~ As authorized by 40 CFR §63.180(b)(2)(ii), a calibration gas other than methane may be used, provided that the owner or operator demonstrates, to the District's satisfaction, equivalency to the leak definition concentration based upon the different calibration gas.

## SECTION 10 Alternative Requirements

The owner or operator of an affected facility may submit a request for the use of an alternate method of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this regulation. The District may approve the request if emission reductions are demonstrated to be substantially equivalent.

## SECTION 11 Data Review Plan ~~Quality Assurance and Control~~

The owner or operator of an affected facility shall prepare, submit to the District for approval, and implement a data review ~~quality assurance and control~~ plan. The plan shall include, but not be limited, to the following items:

11.1 The number of components monitored per technician,

11.2 Times between monitoring events, and

11.3 The presence of abnormal data patterns.

**SECTION 12 Audit Requirements**

12.1 At least once every 2 calendar years, the owner or operator of an affected facility shall retain the services of an independent third party to conduct an audit of each process unit subject to this regulation, including:

12.1.1 All components that:

12.1.1.1 Were not identified, and if leaking, tagged, but that should have been identified, and, if appropriate, tagged, or

12.1.1.2 Were not included in the list of components to be monitored with a hydrocarbon gas analyzer or visually inspected, but that should have been included on that list.

12.1.2 The leak/no-leak status and measured organic compound concentration for all components for which monitoring (with a hydrocarbon gas analyzer) or visual inspection is required that monitoring period, as follows:

12.1.2.1 The monitoring/inspection audit shall begin when the owner's or operator's contracted or usual monitoring service begins monitoring components for that monitoring period,

12.1.2.2 The number of components required to be monitored in the audit out of the total number of components that have the potential to emit organic compounds in each affected facility shall be determined as follows:

12.1.2.2.1 If 400 or fewer components, then at least 50% shall be monitored,

12.1.2.2.2 If between 401 and 700 components, then at least 40% shall be monitored,

12.1.2.2.3 If between 701 and 1000 components, then at least 30% shall be monitored,

12.1.2.2.4 If between 1001 and 1500 components, then at least 25% shall be monitored, and

12.1.2.2.5 If more than 1500 components, at least 400 components shall be monitored.

12.1.2.3 The audit shall not include components that were included in the most recent audit if there are 1000 or fewer ~~less~~ components at the affected facility and shall not include components that were included in either of the 2 ~~two~~ most recent audits if there are more than 1000 components at the affected facility, unless monitoring these components is unavoidable due to the shutdown of process units not included in the specified audits, or for other reasons agreed upon in advance by the District, and

12.1.3 All data generated by monitoring technicians in the previous quarter. This shall include:

12.1.3.1 A review of the number of components monitored per technician,

12.1.3.2 A review of the time between monitoring events,

12.1.3.3 Identification of abnormal data patterns, and

12.1.3.4 Identification of any discrepancies between the data in the electronic data system required by Section 3.7 and the data in the datalogger or field notes required by Section 3 or 40 CFR 63 Subpart H, respectively.

12.2 The owner or operator shall submit notification to the District as follows:

12.2.1 Written notification of the date that the independent third party is scheduled to begin the audit at least 30 days prior to this date, and

12.2.2 Written notification within 15 days after the audit is completed.

12.3 The owner or operator shall submit to the District a copy of the results of each audit authored by the independent third party within 30 days of receipt of the audit results, but no later than 60 days after completion of the audit, including:

12.3.1 The number of components that were not tagged, but that should have been tagged,

12.3.2 The number of components that were not included in the list of components to be monitored (with a hydrocarbon gas analyzer) or visually inspected, but that should have

been included on that list,

12.3.3 The number of components monitored, the number of leaking components, and the percentage of leaking components identified by the independent third party and by the owner's or operator's contracted or usual monitoring service in each of the following categories:

12.3.3.1 Valves (excluding pressure relief valves),

12.3.3.2 Pressure relief valves,

12.3.3.3 Pumps,

12.3.3.4 Compressors, and

12.3.3.5 Connectors, and

12.3.4 A summary of the independent third party's review of all data generated by monitoring technicians in the previous quarter by the owner's or operator's contracted or usual monitoring service for each of the following categories:

12.3.4.1 The number of components monitored per technician,

12.3.4.2 The time between monitoring events, including identification of specific instances in which a monitoring technician recorded data faster than was physically possible due to the hydrocarbon gas analyzer response time or the time required for the technician to move to the next component, and

12.3.4.3 Identification of abnormal data patterns.

12.4 The District may conduct an audit of the owner's or operator's leak detection and repair program.

12.5 In lieu of complying with sections 12.1 to 12.3, an owner or operator may request approval from the District of an alternative method that demonstrates equivalency with the independent third party audit, provided that the request:

12.5.1 Includes a detailed explanation of how the equivalency will be demonstrated, including the appropriate recordkeeping and reporting requirements that will be implemented that are sufficient to demonstrate compliance with the alternative method and

12.5.2 Demonstrates that it is a replicable procedure and details how the equivalency will be demonstrated.

12.6 The District may approve the third-party audits required by this Section to be performed once every 3 years after 2 consecutive audits show a high level of compliance with the requirements of this regulation.

## SECTION 13 Leak Detection and Repair Plan

13.1 The owner or operator of an affected facility shall prepare, submit to the District for approval, and implement the District-approved ~~a~~ leak detection and repair plan. The plan shall include, but is not limited to, the following items:

13.1.1 The components of the training program and the frequency of training~~A leak-rate goal~~,

13.1.2 A procedure and schedule for identifying equipment included in the plan, including both equipment that is subject to an existing LDAR program, if applicable, and equipment that is part of the new LDAR program pursuant to this regulation,

13.1.3 If the affected facility is not subject to an existing LDAR program, then the schedule to begin monitoring,

13.1.4 If the affected facility is subject to an existing LDAR program but is required to monitor additional components pursuant to this regulation, then the schedule to begin monitoring

the additional components,

13.1.5~~3~~ Procedures for identifying leaking equipment,

13.1.6~~4~~ Procedures for identifying added equipment,~~ and~~

13.1.7~~5~~ A process to identify and promote the installation of equipment technology to minimize leaks.~~;~~

13.1.8 A data review plan, and

13.1.9 A schedule for implementation of any other component of the LDAR plan for which full implementation will not occur upon approval by the District

13.2 The owner or operator of an affected facility pursuant to section 1.1.1 shall submit the leak detection and repair plan to the District by [insert the date 120 days after the effective date of this regulation]. The owner or operator of an affected facility pursuant to section 1.1.2 shall submit the leak detection and repair plan to the District within 120 days of written notification from the District that a plan is required. If the District determines that a revision to the plan is necessary, the owner or operator shall, within 60 days of written notification from the District of a deficiency, submit a revision to the plan addressing the deficiency.

13.3 A leak detection and repair plan approved by the District shall be an enforceable requirement of the applicable District permit for the process unit included in the plan.

**SECTION 14 Inorganic Compound Leak Detection and Repair**

14.1 The owner or operator of an affected facility that has components that have the potential to leak an inorganic toxic air contaminant shall prepare, submit to the District for approval, and implement an inorganic toxic compound leak detection and repair plan. The plan shall include, but is not limited to, the following:

14.1.1 The screening and sampling methods,

14.1.2 The frequency of monitoring,

14.1.3 The repair procedures,~~ and~~

14.1.4 The data recording and maintenance plan and the data review plan~~ quality assurance and control.~~;

14.1.5 The components of the training program and the frequency of training,

14.1.6 The procedure and schedule for identifying equipment included in the plan,

14.1.7 The schedule to begin monitoring,

14.1.8 The schedule for implementation of any other component of the LDAR plan for which full implementation will not occur upon approval by the District.

14.2 The leak detection and repair plan shall be submitted within 120 days of written notification from the District that a plan is required. If the District determines that a revision to the plan is necessary, the owner or operator shall, within 60 days of written notification from the District of a deficiency, submit a revision to the plan addressing the deficiency.

14.3 A leak detection and repair plan approved by the District shall be an enforceable requirement of the applicable District permit for the process unit included in the plan.

Adopted v1/_____; effective _____.